# EM 2002 Mid Year Review

Chicago Operations Office

Waste Management/Pollution Prevention

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# Program Overview

## Objectives

- Review CH progress – FY 2002 Waste Disposition and Pollution Prevention Programs
- Discussion of Strategies and Initiatives – EM Liability Waste Disposition, Nuclear Materials, Shipment Security, Lessons Learned, Waste Developments and Strategies, Future of Pollution Prevention

# Legacy Waste

- Remaining EM legacy waste at ANL-E and BNL is aggressively being worked off.
- ANL-E Transuranic Waste
  - ARG will discuss CH-TRU progress
  - RH-TRU path forward is still under development
    - Transfer to INEEL or Hanford
    - Perform WIPP characterization at ANL-E
    - WIPP WAC for RH is not final
- BNL "EM Liability Waste" workoff is progressing.
  - Only 7 mixed waste items remain, 5 of which should be worked off by end of 3rd quarter. Pathway for H3 ampoules still being investigated.
  - Path forward for most of the remaining 53 LLW items.
- Additional non-EM "old waste" at ANL-E, ANL-W, BNL, and Fermi –
  - Need continued assistance from EM-50 TMWFA – Waste Elimination Team (WET) to find disposition pathways. CH recommends that EM and SC establish dialog to ensure that WET is retained as a complex-wide resource.

# Nuclear Materials Initiatives

- CH sites have considerable SNM, accountable materials, isotopes, TRU sources, and other materials that are costly to disposition, or have poorly defined pathways.
- EM nuclear materials are minimal, but have prooved to be very difficult to disposition
  - ANL-E CP5 Converter Tubes, Janus Plates, and EM SNF samples
  - BNL HWMF sources
- CH initiative in working with NISSMG, other Nuclear Materials groups vendors, and other DOE sites to develop paths forward.
- NISSMG is providing ANL-E site-wide materials management plans that will provide suggested paths forward for transuranic sources, SNM, accountable materials, beryllium, EM nuclear materials, and aid all CH labs.
- CH fully supports continuation of the NISSMG, OSRP, and NMFA because otherwise the materials would remain in storage due to lack of pathways.
  - CH would like to expand NISSMG support to include other labs
  - Concern that current OSRP budget does not support actinide source disposition for BNL
  - CH recommends that EM-30 send a strong message of support to EM management that the nuclear materials groups remain intact and available.

# Shipment Security

Since September 11, CH has been using a protocol to ensure that all waste and material shipments are secure and safe.

Total of 165 shipments to date from five CH sites: about 2/3 were EM shipments, most of remainder were SC.

All shipments have safety checklists, driver credentials checked out, communication maintained – no major problems to date.

All information on shipments available to management and emergency operations.

# "Lessons Learned"

- Series of informal lessons learned, heads-up and safety watches has been effective in alerting CH sites of potential waste related concerns.
- Series has included information on suspect bolts, non-conforming waste, truck safety inspections, and safe cargo restraint practices.
- Direct e-mails to Area Offices and sites are effective in making sure that the right people are aware of potential problems or good practices.
- Indicators are that we have a good trend in safety related incidents relative to the same time period last year – indication that sites are aware of the need to manage waste compliantly and safely.
  - 3 EM occurrences through May 2002
  - 17 EM occurrences for the same period a year ago

# Waste Developments and Strategies

- Over the next few years, CH EM LLW and MLLW from remediation and D&D could potentially exceed 1.5 million cubic feet. Several strategies for cost-effective disposition being developed:
  - 5400.5 Restricted Release of soil and debris with residual radioactivity would be useful for future ANL-E D&D and BNL soils.
  - Working with Hanford and NTS on WAC standardization, decreasing costs for disposal (direct funding of Hanford burial grounds), rail access to Hanford, gaining access to NTS as backup.
  - Looking at establishment of turnkey mixed waste contact for CH to reduce costs for macroencapsulation and stabilization.
  - Working with EM-20 on complex-wide cost analyses for disposal – result probably will be easing of some 435.1 requirements and quicker use of commercial options.
- Concerns:
  - Iowa fee on truck and rail is likely a precurser to other States imposing fees
  - Vendor treatment market is still unstable following collapse of ATG. Other vendors are also strugling.
  - Potential Utah tax on Envirocare disposal?
  - Continued metal recycle suspension: future recycle for uncontaminated metals uncertain.
- Non-EM challenge:
  - SC is eliminating FY 2003 direct funding for waste management
  - Post-EM waste coordination – ensuring communication.

# Pollution Prevention

- FY 2002 is the last year of EM P2 Funding
  - Less than $400K distributed to CH sites
  - P2 program reporting being moved to EH
  - Unclear if their will be Departmental coordination on policy and strategies.
  - EM has not determined if their will be a P2 group or strategy for its program
- CH P2 Program intends on continuation of 3-pronged approach to reduce waste management costs:
  - Reduce Cleanup Costs Through Waste Reduction
    - Use minimal processing and disposal
  - Increase Safety/Decrease Costs of Business through Routine Waste Reduction
    - Promote PWAs, increase accountability, target waste classes
  - Eliminate Future Environmental Liability
    - Green design, infrastructure life-cycle cost reduction